Fla. Dept. Agric. and Consumer Serv.
Division of Plant Industry

PLUMOSE SCALE, Morganella longispina (Morgan)

(HOMOPTERA: COCCOIDEA: DIASPIDIDAE) 1

Avas B. Hamon²

INTRODUCTION: Plumose scale, Morganella longispina (Morgan) was intercepted several times in 1964 on citrus from Haiti by the Division of Plant Industry (Dekle, 1964). Last year this scale insect was collected by the USDA-APHIS on Dodge Island, the port area of Miami. Additional surveys by the Division of Plant Industry located several infestations in the Miami area.

DESCRIPTION: The female armor (fig. 1) is circular to oval (1-1.5 mm x 1.0 mm), convex, with exuviae subcentral, dull black with circular striations, and the texture is thick and opaque (Ferris, 1938). Generally, the old female armor is oval because of the flap formed to facilitate the exit of crawlers from under the armor. This flap is usually turned up (fig. 2) in a vertical direction when viewed laterally. The male armor is similar in color, smaller, slightly convex, elongate, and the exuviae is terminal.



Fig. 1. Plumose scale, female (X28) DPI#702076-12

Fig. 2. Plumose scale, arrow points to flap. (X23) DPI#702138-3

 $[\]underline{1}$ / Contribution No. 509, Bureau of Entomology

^{2/} Taxonomic Entomologist, Div. Plant Ind., P.O. Box 1269, Gainesville, FL 32602

SURVEY AND DETECTION:

- 1. Scales may be found throughout the year.
- 2. Inspect stems, paying particular attention to buds and calloused areas. Look for the turned-up flap. This scale insect has been found on the fruit of Citrus spp. in Florida.
- 3. Submit adult female specimens, on the host, in a plastic bag.

<u>DISTRIBUTION</u>: This scale insect is known from the following areas: Algeria, Antigua, Bahama Islands, Barbados, Brazil, Dominican Republic, Guyana, Haiti, Hawaiian Islands, India, Jamaica, Mauritius, Puerto Rico, Sandwich Islands, Sri Lanka, South Africa, Tahiti, Trinidad, and the Miami area of Florida.

HOSTS: Reported hosts in Florida include the following: Callistemon viminalis (Soland ex Gaertn.) Cheel., Citrus limon (L.) Burm. f., Ligustrum japonicum Thunb., L. lucidum Ait., L. sinensis Lour., Nerium oleander L., and Severinia buxifolia (Poir) Ten. Hosts reported by Borchsenius (1966) are in the following genera: Averrhoa, Bauhinia, Calodendrum, Camellia, Carica, Cedrela, Celtis, Citrus, Coffea, Cupania, Elaeagnus, Eucalyptus, Ficus, Fraxinus, Hibiscus, Jasminum, Lagerstroemia, Ligustrum, Macadamia, Mangifera, Michelia, Morus, Nerium, Olea, Persea, Platanus, Punica, Stenolobium, Sterculia, Tecoma, Tristania.

ECONOMIC IMPORTANCE: This armored scale insect is reported as a minor pest of Citrus in Brazil and China (Talhouk, 1975).

<u>CONTROL</u>: Several applications of a systemic insecticide will be necessary for control on ornamentals. Zimmerman (1948) reported <u>Archenomus perkinsi</u> (Fullaway) and Prospaltella koebelei Howard as parasites of this scale insect in Hawaii.

LITERATURE CITED:

- Borchsenius, N. S. 1966. A catalogue of the armored scale insects (Diaspidoidea) of the world. (In Russian). Akad. Nauk. SSR Zool. Inst. Moscow. 449p.
- Dekle, G. W. 1964. An armored scale, <u>Morganella longispina</u> (Morgan) on Haitian citrus. Div. Plant Ind., Fla. Dept. Agric., Ent. Circ. 23. lp. illus.
- Ferris, G. F. 1938. Atlas of the scale insects of North America 2:SII-249; 1 fig. California, Stanford Univ. Press.
- Talhouk, A. S. 1975. Citrus pests throughout the world. <u>In Citrus, CIBA-GEIGY AGRO-CHEMICALS</u>, Tech. Monograph No. 4 CIBA-GEIGY Ltd., Basle, Switzerland. 88p.
- Zimmmerman, E. C. 1948. Insects of Hawaii. Vol. 5 Homoptera:Sternorhyncha, Univ. of Hawaii Press, Honolulu. 464p. illus.